BEFORE THE

Federal Communications Commission

WASHINGTON, D. C.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In The Matter Of:	)	GEN Docket No. 90-314
	)	ET docket No. 92-100
	)	
Amendment of the Commission's	)	RM-7140, RM-7175, RM-7617,
Rules to Establish New Personal	)	RM-7618, RM-7760, RM-7782,
Communications Services	)	RM-7860, Rm-7977, RM-7978,
	)	RM-7979, RM-7980

REPLY COMMENTS OF PCN AMERICA, INC.

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TABLE OF CONTENTS

SUMMARY

PCN America, Inc., a subsidiary of Millicom Incorporated, has been a major, independent proponent of PCS since making the first request that this proceeding be initiated in a Petition for Rulemaking to allocate spectrum for a Personal Communications Network in November 1989. As PCN America first suggested, the Commission has proposed to share the 1850-1990 MHz frequency band with incumbent microwave users. PCN America continues to support that proposal, and believes that sharing is possible with any reasonable interference standards.

PCN America emphasizes in these Reply Comments that it is essential the Commission's rules for PCS permit the development of a robust industry, capable of competing with cellular operators. Those commenters who are not burdened by some special interest in the continued profits of the cellular industry have joined PCN America in recommending that the Commission award two PCS licenses for 40 MHz of spectrum in each Major Trading Zone. These parties also generally agree with PCN America that licenses should be awarded by streamlined comparative hearings, and that some spectrum should be reserved for future PCS use.

PCN America urges the Commission not to be misled by the Comments of those whose primary interest is the preservation of the role of the cellular industry. Those

parties support five licenses of 20 MHz each in SMAs and RSAs, awarded by lottery. The obvious intent of these parties is to create a crippled PCS industry that they may then easily acquire. It is readily apparent that such proposals will not produce a viable PCS industry.

Finally, PCN America notes the need for national interoperability, but emphasizes that this should not be accomplished through national licenses which would stifle innovation and creativity. PCN America supports a requirement that regional licensees be required to delegate national coordination issues to a non-profit National Network Operator, which could be formed as a consortium of the regional licensees.

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To: The Commission

REPLY COMMENTS OF PCN AMERICA, INC.

These Reply Comments are submitted by PCN America, Inc., a subsidiary of Millicom Incorporated.

Since submitting the initial request for rulemaking that first asked the Commission to authorize personal communications services and thereby generated this proceeding, 1/ PCN America has been an active participant in all phases of PCS development. Unlike many of the other commenting parties here, PCN America has no interest other than its support of PCS. PCN America is not seeking to protect any existing license or operation on the proposed frequencies. PCN America is not protecting any cellular or landline business with which PCS operators may compete. PCN America is not an equipment supplier whose market might be affected by a new personal communications service. Indeed, PCN America has no

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1/ PCN America, Inc., Petition for Rulemaking to Allocate Spectrum for a Personal Communications Network, Nov. 7, 1989.

interests in any of the different technologies proposed for PCS. PCN America, therefore, is one of the parties in this proceeding that approaches PCS from the independent, unbiased standpoint of a company whose only interest is as a potential PCS licensee.

Many of the commenters in this proceeding are not so unburdened. Although we recognize that PCS' potential competitors have interests that the Commission surely should consider, we find it ironic that these competitors should in many cases choose to present their positions as if in support of PCS. We hope that the sheep's clothing worn by these commenters will not blind the Commission to their wolfish nature.

I. Spectrum Issues

We are pleased to note that there is virtually unanimous agreement that the frequencies at 1850-1990 MHz, first proposed by PCN America, 2/ are the appropriate frequencies for PCS. Again as PCN America was the first to

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2/ In its initial request for rulemaking filed November 7, 1989, PCN America suggested that the frequencies for PCS be found between 1710 and 2290 MHz. In its experimental application filed on January 16, 1990, PCN America was the first to propose use of the 1850-1990 MHz block for PCS.

point out, these frequencies are lightly-used and susceptible to sharing with the incumbent microwave users. 3/

There are, however, widely varying views as to the amount of bandwidth that should be allocated per PCS licensee. PCN America's proposal for two licenses of 40 MHz per market, with another 40 MHz held in reserve, generally finds support in the Comments of the major "independent" PCS proponents -- those knowledgeable entities that have shown the greatest interest in operating PCS systems and have no conflicting special interest. For example, American Personal Communications, Associated PCN Company, Cox Enterprises, PerTel, and Time Warner Telecommunications, as well as equipment developers Qualcomm and Omnipoint Communications, all have recommended

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3/ PCN America's Petition for Rulemaking on November 7, 1989, analyzed the relative usage of the 1850-1990 MHz band in five cities -- Boston, Chicago, New Orleans, San Diego, and New York. PCN America's first experimental license application for Washington, D. C., filed on January 16, 1990, contained an extensive exhibit showing the frequencies and paths of all microwave usage in the 1850-1990 MHz band within 35 miles of Washington. The study showed that "there are only 82 transmission paths operated by 11 licensees in the entire metropolitan area." PCN America's Application for Experimental License at 9.

After discussions with Commission staff, PCN America submitted an amendment to its experimental license application on April 23, 1990, seeking experimental licenses for Houston and Orlando. Again, PCN America demonstrated through engineering studies that the 1850-1990 MHz band was lightly used -- although these cities were selected in part because they are among the most heavily used areas for microwave in the United States.

that the Commission award at least 40 MHz of spectrum for each licensee. 4/ Each of these PCS proponents also agrees with PCN America that there should be initially two PCS operators per market. 5/

The Comments of these parties, as well as the Comments of PCN America, persuasively in our view, demonstrate why at least 40 MHz per licensee is necessary. The demand for PCS, first demonstrated by the Arthur D. Little Study sponsored by PCN America and attached to its Comments to the Commission's Notice of Inquiry in this docket, 6/ is widely recognized to be substantial. 7/ Yet the ability of PCS providers to compete with the myriad of existing local communications providers will require that PCS operators have some reasonable likelihood of obtaining a sufficient share of early PCS customers to survive. The Comments of PCN America, as well as the Comments of American Personal Communications, Associated PCN Company,

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4/ See also Comments of Comsearch and PCN Communications.

5/ Cox Enterprises does not specifically comment on the preferred number of licensees, although its suggestion of 40 MHz frequency blocks plus a "frequency reserve" would seem to dictate two licensees initially.

6/ See Arthur D. Little, Demand Analysis Study for Personal Communications & Networks, a Report to PCN America, Exhibit 1 to Comments of PCN America, in Gen. Docket No. 90-314, October 1, 1990.

7/ See NPRM at ¶ 26.

Cox Enterprises, PerTel, and Time Warner Telecommunications, all demonstrate why the Commission should license no more than two PCS operators initially. PCN America, American Personal Communications, Cox Enterprises, Omnipoint Communications, PerTel, and Qualcomm also support a spectrum "reserve" for later use.

As PCN America noted in its Comments, two PCS providers will mean that there are as many as eleven parties in some form of competition, and five parties in mobile services competition (plus pagers). 8/ We respectfully submit that the Commission should listen to the judgment of these experienced and independent commenters regarding the technical and economic needs of licensees who will have to co-exist with microwave users and compete with entrenched telecommunications providers. The worst mistake that the Commission could make here would be to authorize this critical new service in a way that would not allow it to succeed. As pointed out in a number of Comments, 9/ the recent experience in the United Kingdom counsels strongly for no more than two initial PCS licensees.

8/ The eleven competitors include 2 PCS operators, 2 cellular operators, 1 SMR operator, 1 LEC, 3 interexchange carriers, and 2 paging companies. The five mobile competitors include 2 PCS operators, 2 cellular operators, and one SMR operator.

9/ See, e.g., Comments of Cox Enterprises.

Opposed to the commenters who seek to operate a robust personal communications service are those commenters who seek to avoid competition to their existing services -- or to add PCS services as a supplement to their other competitive services. The cellular industry, for example, almost uniformly proposes (1) five PCS licensees with (2) 20 MHz of spectrum each. 10/ There are no persuasive arguments presented, however, that such a small amount of spectrum is sufficient under circumstances which require sharing with microwave users. Indeed, the proponents of 20 MHz licenses generally do not even acknowledge the sharing issue.

The reason why the cellular companies have advocated such small blocks of spectrum is transparent. They know that no effective competition can be marshalled by use of a 20 MHz allocation in a sharing environment. It is also interesting to note that the cellular industry argues for (1) cellular eligibility, (2) award of licenses by lottery, (3) service

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10/ See, e.g., Comments of Nynex, Rural Cellular Corp., Vanguard Cellular Systems, Rochester Telephone Corp., Rock Hill Telephone Co., National Telephone Cooperative Association, South Carolina Telephone Association, GTE Corp., United States Telephone Association, National Rural Telecom Association and Organization for Protection and Advancement of Small Telephone Companies, McCaw Cellular Communications, and Bell South. See also Comments of Bell Atlantic Personal Communications (5 providers of 18, 20, or 24 mHz); Cincinnati Bell Telephone (4 providers of 20 MHz).

areas identical to cellular SMAs and RSAs, (4) free alienability of licenses, and (5) no limits on the amount of spectrum a cellular licensee can accumulate. 11/ The apparent scenario is as follows: The Commission awards numerous licenses by lottery to speculators who have no desire or ability to offer competitive mobile communications service. Because no independent, experienced telecommunications operator can acquire a license and hope to compete with an entrenched cellular operator under these circumstances, the only reasonable buyers for the licenses are the incumbent cellular operators themselves. PCN America respectfully submits that this cozy arrangement desired by the cellular industry would not serve the public interest.

II. Sharing Issues

In being the first to recommend use of the 1850-1990 MHz band, PCN America was also the first to suggest sharing

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11/ See, e.g., Comments of Rural Cellular Corp. (5 licenses in each MSA/RSA, lotteries, LECs and cellular companies eligible); Comments of Rochester Telephone Corp. (same); Comments of USTA (5 licenses of 20 MHz in each MSA/RSA, setaside of one license for LEC, comparative hearings or lotteries with buildout requirements); Comments of GTE Corp. (5 blocks of 20 MHz, MSA/RSAs, comparative hearings or lotteries, any party may acquire after some buildout).

that band with the existing microwave licensees. 12/ In addition, PCN America was the first to conduct extensive experiments in connection with developing a statistical, empirical propagation analysis and site-specific propagation prediction tool for purposes of interference avoidance. 13/

Based on its work to date, PCN America has suggested that the EIA-10E criteria are "much too conservative for use in today's crowded spectrum environment." PCN America's Comments at 8. PCN America has been joined in that observation by such diverse parties as Sprint 14/ and Bell Atlantic. 15/ Although PCN America is willing itself to operate a PCS system regardless of the Commission's standards of protection for microwave users, we emphasize here that the more reasonable and supported the standard chosen, the easier sharing will be accomplished, and the more efficient the use of the spectrum.

12/ See PCN America's Petition for Rulemaking, Nov. 19, 1989, supra note 1. ("The alternative to outright reallocation is the development of sharing arrangements that would be satisfactory to both PCN and existing users.") See also PCN America's application for an Experimental PCN License, January 16, 1990.

13/ PCN America conducted extensive experiments over a lengthy period of time in Houston and Orlando. The results of PCN America's initial experiments provided the stepping-off point for many later experiments by others.

14/ Comments of Sprint, Appendix A, at 2.

15/ Comments of Bell Atlantic Personal Communications, at 45.

Whatever standard the Commission chooses, PCN America believes that PCS can be a successful enterprise -- if the PCS licensing process is properly implemented.

III. Licensing Issues

PCN America is joined by a substantial majority of the major independent PCS proponents in recommending that the Commission award licenses for 49 Major Trading Areas. 16/ To the best of PCN America's knowledge, its suggestion of regional PCS licenses in its October 1990 Comments to the Commission's Notice of Inquiry in this docket was the first such suggestion made to the Commission. PCN America and these other parties have now demonstrated why larger service areas are necessary for the success of PCS. PCN America has, in addition, suggested that a percentage of each MTA be "relinquished" for local licenses. Such a licensing scheme would accommodate the desires of some parties for smaller licensing areas while preserving the considerable advantages of larger licensing areas as well.

As noted above, the LEC/cellular community -- primarily interested in preserving its competitive position -- has almost uniformly argued for licensing areas mirroring

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16/ See Comments of Cox Enterprises, Qualcomm, American Personal Communications, PerTel, Omnipoint Communications, and Personal Communications Network Services of New York.

cellular MSAs and RSAs. Of course, were PCN America a cellular operator in the United States, it would adopt a similar strategy. First of all, using cellular-licensing areas would make it easier for a cellular company to operate PCS systems, after the cellular company acquires them. But more important to the cellular licensee, keeping PCS license areas small would absolutely "murder" any likelihood that independent PCS operators could compete with the entrenched and largely consolidated cellular industry. For although cellular operators began with MSAs and RSAs as license areas, either because of the wireline LEC's regional reach or through acquisitions, the vast majority of cellular customers are today served by a relatively few major regional players -- the RBOCs, GTE, and McCaw. New independent PCS operators limited to MSAs and RSAs could scarcely compete.

The debate about "national licenses" is really one about standards. There is no serious argument in favor of national licenses, except that control of a band of frequencies nationally by one entity would permit easy national standardization of technology (and billing), interoperability, and roaming. PCN America believes that these concerns are real, and that the Commission should devote considerable thought to how to ensure that the PCS industry is not balkanized by stubborn regional licensees, especially those that may have interests in one technology or another. In order

to meet that need, PCN America has proposed that there be selected a non-profit National Network Operator ("NNO") for each frequency block, whose responsibility it would be "to set engineering standards for PCS networks and to provide for nationwide interconnection, roaming, and billing." 17/ At a minimum, each NNO would provide a nationwide database and signalling platform and a standardized billing platform and clearing house. Each NNO would also adopt either a common technical standard or, at the least, would require that each licensee in that frequency block provide interoperability with all other regions. The NNO would be a consortium, and could be owned in part by regional licensees.

In its Licensing Proposal, PCN America suggested that NNOs either be selected by comparative hearing, or that they be formed by the various regional permittees for each frequency block after the regional permittees are selected, but before they actually receive their licenses. 18/ After discussing the issues with other interested parties, PCN America believes that there may be a consensus building for the latter idea -- that regional permittees in a frequency band be required to form a

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17/ Licensing Proposal of PCN America, Inc., Docket 90-314, submitted October 20, 1992, at 2 n.2.

18/ Id. at 6-7 and nn.10 & 11.

NNO, which would have the responsibilities set forth above, before receiving operating licenses. Whatever method the Commission chooses, PCN America believes there is merit to some national requirements for interoperability between regions, among operators in a specified frequency block.

PCN America does not believe, however, that there is merit to national "licenses" for PCS. And PCN America cannot support the proposal of MCI for the selection of three consortia to be licensed as PCS providers nationwide. Whether licenses were given to national "entities" or national "corsortia," it seems to us that the evils would be basically the same. The industry would be controlled by a few powerful entities (that would either receive the national licenses or drive the consortia), and innovation and competitiveness would be stifled. We would be concerned that the consortia themselves would be controlled -- as MCI undoubtedly intends -- by large interexchange carriers or other large telecommunications corporations with interests in integrated communications, technology, or manufacturing. Indeed, it is difficult to see MCI's proposal as anything other than a bold stroke to create its own alternative local network to reduce access charges. PCN America believes that PCS should be regionally licensed to a diverse group of operators, picked by

comparative hearing, 19/ who would then delegate together the key issue of interoperability to a consortium in which they could hold interests.

Conclusion

PCN America, which sponsored the first market analysis of consumer demand for PCS, 20/ understands perhaps better than any other party the need for the Commission to move expeditiously to issue rules for PCS and to conduct licensing proceedings. Despite the other significant responsibilities of the Commission, PCN America urges that PCS be given a top priority and that rules be issued within the first half of 1993. If the Commission moves quickly now, there is still a chance for the United States to benefit from its technological innovations in PCS. If the Commission's rules permit a robust

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19/ Several parties have made suggestions as to how comparative hearings could operate without unduly taxing the Commission's resources or taking lengthy periods of time. See Comments of American Personal Communications and PerTel.

20/ See Arthur D. Little Study, note 6 supra.

PCS industry to develop to use this United States technology, the national and trade advantage could be large.

Respectfully submitted,

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